

Applicant: Stemmler et al.
Serial No.: 09/492,214
Date Filed: January 27, 2002
Page 2 (Amendment October 9, 2002)

2. (Amended) The method according to Claim 44 in which the method is an affinity assay.
 3. (Amended) The method according to Claim 42 in which the analyte comprises a nucleic acid.
 4. (Amended) The method according to Claim 44 in which the method is an immuno-affinity assay.
 5. (Amended) The method according to Claim 42 in which the analyte determination occurs in a volume of less than 1 μ l.
 6. (Amended) The method according to Claim 44 in which the method is a competitive assay.
 7. (Amended) The method according to Claim 44 in which the method is a sandwich assay.
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9. (Amended) The method according to Claim 42 in which the measurement signal is generated by irradiation excitement of the bound labeled reagent.
 10. (Amended) The method according to Claim 42 in which the labeled reagent is a fluorescent labeled reagent.
 11. (Amended) The method according to Claim 42 in which the sample is in a liquid phase.

Applicant: Stemmler et al.
Serial No.: 09/492,214
Date Filed: January 27, 2002
Page 3 (Amendment October 9, 2002)

12. (Amended) The method according to Claim 42 in which the solid phase is formed on a wall of a well in a sample carrier.

13. (Amended) The method according to Claim 12 in which the carrier is a micro-titre or nano-titre plate.

14. (Amended) The method according to Claim 12 in which the well has a quadratic, cylindrical, truncated pyramid or truncated cone shape.

15. (Amended) The method according to Claim 12 in which the well has an aperture area and a floor area, the aperture area being smaller than the floor area.

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16. (Amended) The method according to Claim 15 in which the well has a truncated pyramid or truncated cone shape.

C3
19. (Amended) The method according to Claim 42 in which the measurement signal is obtained by spatially staggered measurement.

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21. (Amended) The method according to Claim 42 in which a light beam is used to excite the sample, said light beam having a diameter of less than 40 μm .

C5
23. (Amended) The method according to Claim 21 in which a laser provides the light beam.

C6
33. (Amended) The method according to Claim 5 in which the volume is in the range of 50 to 100 nl.

Applicant: Stemmler et al.
Serial No.: 09/492,214
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Page 4 (Amendment October 9, 2002)

34. (Amended) The method according to Claim 13 in which the sample carrier is a nano-titre plate.

35 (Amended) The method according to Claim 42 in which the quenching substance is a metal, dye or fluorescence-quenching substance.

36. (Amended) The method according to Claim 23 in which the light beam has a diameter of about 20 μm .

Please add the following new claims:

42. (New) A method for quantitative or qualitative determination of an analyte comprising:
- a) incubating a sample containing the analyte with labeled reagent and a solid phase coated with a quenching substance so as to allow at least some of the labeled reagent to bind to the analyte, wherein the quenching substance is capable of suppressing signal from unbound labeled reagent;
 - b) exciting the sample so as to generate signal from the bound labeled reagent; and
 - c) measuring the signal generated from the bound labeled reagent, thereby quantitatively or qualitatively determining the analyte, wherein the determination of the analyte occurs without physically separating unbound and bound labeled reagent.
43. (New) The method according to Claim 42, wherein the quenching substance is gold, silver or graphite.

Applicant: Stemmler et al.
Serial No.: 09/492,214
Date Filed: January 27, 2002
Page 5 (Amendment October 9, 2002)

44. (New) The method according to Claim 42, wherein the labeled reagent is selected from the group consisting of antigen, antibody, nucleic acid, ligand or receptor.
45. (New) The method according to Claim 42, wherein the labeled reagent is immobilized on the solid phase.
46. (New) A method for quantitative or qualitative determination of an analyte comprising:
- a) incubating a sample containing the analyte with labeled reagent and a solid phase coated with a metal quenching substance so as to allow at least some of the labeled reagent to bind to the analyte, wherein the metal quenching substance is capable of suppressing signal from unbound labeled reagent;
 - b) exciting the sample so as to generate signal from the bound labeled reagent; and
 - c) measuring the signal generated from the bound labeled reagent, thereby quantitative or qualitative determining the analyte, wherein the determination of the analyte occurs without physically separating unbound and bound labeled reagent.
47. (New) A method for quantitative or qualitative determination of a labeled analyte comprising:
- a) incubating the sample containing labeled analyte with a reagent and a solid phase coated with a quenching substance so as to allow at least some of the labeled analyte to bind to the reagent, wherein the quenching substance is capable of suppressing signal from unbound labeled analyte;

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